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Reflexive Agreement Binding
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0. What I want to do in this paper is provide an analysis of Dogrib reflexives. As we will see, reflexives in Dogrib are identifiable through a reflexive prefix ede-. In contexts of emphasis, overt pronouns may co-occur with the reflexive prefix. It is these contexts which permit me to choose among a number of possible analyses of the construction. Having done this, I will also be able to suggest a response to possible concerns some might have about the relation of 'agreement' to full NPs, and I will make a few remarks about pronouns.

I. Dogrib and other members of its family are pro-drop or null argument languages, a fact evident from the sentences in the examples below.

(1) Ts'islihwho. 'She woke me up'
(2) Gits'ált'à. 'Let's visit them'
(3) Edeehst'o. 'I scratched myself'

Free pronouns are typically not used, since affixes on the predicates in clauses (underlined above) signal the features of their arguments. For emphasis or contrast, and in conjunctions, lexical pronoun forms are available. In fact, they will play an important role as we work through this paper.

Turning to the reflexive example seen in (3), the invariant reflexive prefix ede- occurs in the slot in the verb for object inflection, identical to the position of the first person object inflection sV- in (1). The reflexive morpheme acts in interestingly similar and different ways in different languages, a topic which has been explored in some detail in the work of Chad Thompson. Considering the whole family, and focussing particularly on semantic and morphological facts, Thompson suggests broadly that reflexives in Athapaskan—in fact in the whole NaDene family—are intransitives. Others working on individual languages have made similar suggestions (for example, Rice 1989:462), and Willie (1989), writing on Navajo, provides (4), which supports this idea.

(4) 'ashkii 'ábi 'adiiłtså.
   boy self:EMPH REFLEX:3ss:saw
   'The boy himself saw himself' (Willie 1989:422)

(4) contains the emphatic pronoun 'ábi, which I understand functions very much like the adjunct reflexive form himself italicized in the English gloss. In a Navajo reflexive
sentence, 'ábi can only be construed with the subject in the sentence, pretty good evidence that some process of detransitivization is associated with the reflexive morpheme in this language. I will be arguing that no such detransitivization takes place in Dogrib. Initial evidence for this position comes from the Dogrib (5), which also contains an emphatically interpreted pronoun but which contrasts with Navajo (4) in the readings available to it.

(5) Edëdï zø edek'eedî nϕϕ.
   3 only Refl.3.PF.save Evid

a. 'Only he saved himself evidently'
b. 'He saved only himself evidently'

I will therefore be arguing against either one of structures A or B below for Dogrib reflexives, and arguing for a structure resembling C.

A. \[
\begin{array}{c}
V_i \\
\hline
\text{ede-} \\
(X_i, Y_i)
\end{array}
\]

B. \[
\begin{array}{c}
\text{NP} \\
\hline
V \\
N_i \\
N_i \\
\text{ede-}
\end{array}
\]

C. \[
\begin{array}{c}
\text{Agr-VP} \\
\hline
VP \\
\text{ede-}
\end{array}
\]

It is a straightforward argument: two interpretations for reflexive sentences like (5) suggest two NP positions, and therefore a transitive structure.

II. Structure A represents a lexical reflexive. Here the reflexive morpheme binds the verb's two arguments X and Y together, and it also satisfies the verb's internal theta role, with the result being an intransitive verb. Grimshaw (1982) gives an analysis just like this for Romance reflexives, and di Sciullo and Williams (1987:40) propose this structure for the English prefix self- as in self-educated. This structure could very well be what is needed for the Navajo reflexive in (4). Structure B represents noun incorporation in the sense of Baker 1988, or, if it were somewhat altered, the incorporation of inflection as in Anderson's (1982) treatment of Breton. The idea here is that the prefix is moved from a syntactic position to a morphological one, the t in the structure representing the trace of the movement. Structure B parallels suggestions by Hale 1987 and Speas 1988 for the treatment of certain other Athapaskan inflectional affixes, the Dogrib disjoint anaphor ye- and the third person prefix bi- in Navajo. What A and B have in common is no available position in syntax for a phrase corresponding to the
reflexive affix. Structure C in contrast has such a position; it recalls the model of Pollock 1989 for describing various facts of French and English syntax. In it, person/number inflections stand as agreement between a predicate and a NP governed by that predicate.

The two interpretations available for (5), in particular, the availability of the reading in (5b), would seem to rule out the analysis A. Analysis A, an intransitive structure, would also be ruled out by any simple reflexive clause containing two NPs. Such sentences do exist, as we see from (6)-(8).

(6) Amii ḣwâ ḥat'i-le sîi ededi edegâ?edi ha. who timely 3.be-Neg Foc 3 Refl.3.IMP.serve Fut 'Whoever doesn't come on time has to serve himself'

(7) Sechi ededi edets'ɔ zɔ sɔɔmba k'ejhwho. 1s.yr brother 3 Refl.to only money 3.PF.spend 'My younger brother spent money only on himself'

(8) Setà ededi edets'ɔ che niihchi ha. 1s.father 3 Refl.from check 3.IMP.put down Fut 'My dad is going to cash his own check'

Examples like these are allowed by both of the other analyses. According to structure B, the 'emphatic'pronoun ededi in (6) would be an adjunct, like a topic, associated with the NP argument position occupied by the trace in B; according to structure C, the pronoun would simply be the argument of the verb.

To decide between these two possibilities we need to make a digression into Dogrib phrase structure. First I will show that emphatic pronouns in Dogrib occupy either topic positions outside the clause, or ordinary NP positions within the clause. Then I will allude to an argument I have made for Slave, the language most closely related to Dogrib (with which it is mutually intelligible) to support the view that the pronouns in (6)-(8) are not adjuncts, but occupy argument positions like the NP position shown in structure C.

III. Dogrib is an SOV, head-final language. There are some deviations from this strict form: to give one example, the complementizer ?asì, used in yes-no questions and seen in (9) and in the corresponding tree in (12) on the following page, precedes its sister IP, unlike other complementizers.
(9) Ne?eè ?asì ninèè?a ?
   2s.coat Q 2s.PF.pick up
   'Have you picked it up, your coat?'

The clause-initial position under CP, filled in (9) by ne?eè 'your jacket', is available for fronted topics and question phrases, as the examples (10) and (11) further show.

(10) Dàht'e nìnde kò gohtsì ha?
      when 2s.o-bro house 3.IMP.build Fut
      When is your older brother going to build the house?

(11) Sì sìi ?ehtsì senèhshò.
      1s Foc granny 1s.3.PF.raise
      'Granny raised me'

From (11) we see that lexical pronouns can also occur here, as suggested by the quite marked OSV word order. The pronoun sì 'I' in this sentence has one of the typical interpretations for lexical pronouns in Dogrib: it is focussed, as the speaker contrasts herself with others. For present purposes what examples like (11) are useful for showing is that pronouns, like other NPs, may occur in non-argument, adjunct positions.

(12) (compare sentence (9))

```
CP
   NP
     ne?eè
       C
         ?asì
           NP
             I'
               IP
                 VP
                   V
                     NP
                       ec
                         ninèè?a
```

Examples (13) and (14) in contrast show that pronouns need not occur in these kinds of positions; they are not limited to topic structures.

(13) ?asì nì xàrè nekwighà k'eneet'a?
    Q 2s EMPH 2s.hair 2s.PF.cut
    'Did you yourself cut your hair?'
(14) ?asį nàidi k'èezhọ nį xàrè nets'q goįnde?
Q doctor 2s EMPH 2s.to 3.PF.speak
'Did the doctor speak to you personally?'

The position of the pronoun nį 'you' to the right of the complementizer in these sentences shows that it is within the simple clause, IP in our tree. NPs which have a thematic relation to the verb act differently than adverbs and phrases which are not arguments of the verb. I have argued this point for Slave, the language neighbouring Dogrib. The crucial contrast in Slave centres on pairs like those in (12) and (13). Long distance questions are possible in some cases, as in (15), and impossible in others, as in (16).

(15) Slave (Saxon 1989b:392)
?ayiči netā [ t yegháiįndâ ] kenéhdzâh ?
what 2s.father DA.3.PF.look-at 3.PF.try
'What did your dad try to look at?'

(16) *?òde netā [ t nǐmbáa enáįh?â ] kenéhdzâh ?
where 2s.father tent 3.PF.pitch 3.PF.try
(Where did your dad try to pitch the tent?)

The generalization which can be made about this contrast is that arguments can be connected with their former positions at a distance, but adjuncts cannot. The existence of a distinction between argument and adjunct positions within the simple sentence therefore seems justified in Slave. I assume the same for Dogrib, given their very close relationship of mutual intelligibility. Since the pronoun nį 'you' in (13) and (14) enters a thematic relation with the verb in each sentence, and since the position of nį with respect to the complementizer ?asį shows that they are inside the same simple clause, I am led to the conclusion that pronouns may occur in argument positions in Dogrib. Pronouns then don't differ from other NPs in their gross distribution. They can be topics, or not.

IV. We are interested in the question of whether ededį in (6) and parallel examples is argument or adjunct. From its interpretation, it is obviously associated thematically with the verb. The pronoun corresponds to the goal argument of the verb, and is also linked to the reflexive affix. The other NP in (6) is the agent of the verb. It is the subject of the sentence, and antecedent of the pronoun. In (6), and also (7) and (8), the subjects receive the non-topic, non-focussed interpretations. I assume therefore that they are not topics and in fact occur
in the canonical subject position. The pronoun in each of (6)-(8) must then be occurring within the simple clause IP also, from simple word-order facts. From these observations, it follows that structure B is not suitable as an analysis of reflexives in Dogrib, because it can't accommodate the type of 'doubling' seen in this language.

The same phenomenon is seen in examples (17) and (18) with non-third persons. The context given makes it clear that the non-subject argument of each is being contrasted, and that therefore the lexical pronoun ni 'you' which occurs is linked with the reflexive affix.

(17) Dàtliga geret'ê netà. Nì chi edexè
how-many 3p.IMP.be 2s.IMP.count 2s too Refl.with

?ità wenawìndi-le sò.
U.2s.IMP.count 3.2s.OPT.forget-Neg Prohib

'Count how many there are. Don't forget to count in yourself too'

(18) Mbo ǹhchin, nemò chi gha, nemba chi gha.
meat 2s.IMP.take 2s.mother too for 2s.sister too for

Nì edegha chi mbo ǹhchin.
2s Refl.for too meat 2s.IMP.take

'Take meat, for your mother and for your sister. Take meat for yourself too'

We are left then with structure C. In it the affix edegha is agreement, which cooccurs with a pronoun in an argument position. That pronoun, as usual, may be empty, as in (3), or overt, as in (6).

V. Though this issue may be considered to be settled, there is another problem to solve. Lexical pronouns may occur linked with the reflexive affix; however, the pronouns themselves are invariant and overtly marked only with features of person and number. The problem now is what to do about their binding properties, relationships of coreference with clausemate NPs. In the ordinary instance, as in (14), the pronoun, linked to a pronominal affix, must be free in its governing category, the NP or sentence which contains it. When the pronoun is linked with the reflexive affix, it must be bound in its governing category. Of course agreement in Dogrib plays the crucial role in determining when the pronoun is an anaphor and when it is a pronominal. I propose to follow the lead of Borer (1984), and also Roberge (1986), in formalizing this suggestion. Treating the Romance reflexive clitic
se, Borer and Roberge both argue (contrary to Grimshaw 1982) that there is an empty pronoun associated with the clitic, as in the structure shown in (19).

\[
\begin{array}{c}
\text{(19) } \\
\begin{array}{c}
\text{se} \\
\text{i} \\
\text{θ}
\end{array}
\end{array}
\]  
(Borer 1984:122; also Roberge 1986:250)

They assume that the relation between reflexive clitic and empty pronoun results in the assignment of the feature [+anaphor] to the empty pronoun, a fact of course which ultimately leads to reflexive interpretations. They assume, in other words, that the clitic identifies the empty pronoun as an anaphor. Identification in Dogrib, I would propose, is accomplished by the affix ede-, and it likewise results in the NP of the structure having the features of a reflexive. I further propose that this process in Dogrib is not limited to empty categories like those seen in (3), but affects any NPs with only pronominal features, that is, empty and overt pronouns. If we assume that overt pronouns in Dogrib have person and number features, but are otherwise featurally unelaborated, agreement will provide their other feature values. This feature specification can be effected as is shown in (20).

\[
\begin{array}{c}
\text{(20) } \\
\begin{array}{c}
\text{Agr-VP} \\
\text{VP} \\
\text{Agr} \\
\text{NP} \\
\text{V} \\
\text{ede-} \\
\text{[+anaphor]}
\end{array}
\end{array}
\]

Once the pronouns in (6)-(8) are identified as anaphors, the binding facts follow.

VI. The preceding discussion raises a couple of more general issues which we can take some time to examine. The first concerns what we might call 'unmarked reflexives'—about this I have just thoughts on some interesting questions for further study; the second concerns some broader questions of agreement.

Dogrib is of course not the only language in which overt pronominals and anaphors are not distinguished in form. Faltz (1986) discusses 'unmarked reflexives' in Old English; these are also found in a number of other languages. Among the languages of this set besides Dogrib which I have very briefly looked at—Old English, Chamorro, Niuean, Samoan, and Pirahã besides Dogrib, only Dogrib has agreement which identifies the pronoun as a reflexive. Most have optionally occurring morphemes, like self in Old English, which can be used to pretty unambiguously mark
the pronouns as reflexives. In other cases, however, a completely unmarked reflexive may occur. In such case, it seems worth asking how these forms are treated by the binding theory.

One possibility is that the single forms which exist in these languages are neither non-reflexive nor reflexive, therefore completely unrestricted in their distribution. Enç 1989 suggests that one of the pronouns in Turkish, kendisi, has this character.

Alternatively, and adopting some terminology from government-binding theory, maybe the Binding Theory in these languages reverses its usual filtering role and produces a type of 'functional determination' of the unmarked pronouns: pronouns which are bound in their governing category are defined as anaphors, and those which are free are defined as pronominals. Chung 1989 suggests this for the unmarked system of pronouns in Chamorro.

Or, perhaps some principle or condition peculiar to the grammar of a particular language makes anaphors functionally expendable. Such an analysis is given of Pirahã pronouns by Everett. Similar considerations might explain the lack of possessive reflexives of the self-type in modern English.

Attempting to stand back from particular analyses of these phenomena, it is interesting to observe in Niuean and Chamorro, as Seiter (1980) and Chung (1989) do, that despite the lack of formal differences between anaphors and pronominals in these languages, various principles of grammar do seem to refer crucially to the contrast. The kinds of principles which I am referring to are exemplified in (21).

(21) Niuean (Seiter 1980)
Deletion rules, such as Relative Deletion and Equi NP Deletion, which are in general obligatory, apply only optionally to subjects which bind clausemate anaphors.

Chamorro (Chung 1989)
The filter *(V [+Nom] [+Obj]), where [+Nom] is third person plural, is inoperative if [+Obj] contains an anaphor.

Such facts suggest that the notions 'anaphor' and 'pronominal' are indispensible in these languages, despite the lack of formal marking of the distinction. It seems therefore that pronouns like Turkish kendisi, for which the Binding Theory is irrelevant, are not the usual stock found in the languages under consideration. I am not aware of whether there are studies of, for instance, Old English which might bear on this observation, but the question might be worth investigating.
There was another issue I wanted to comment on briefly: configurationality. From the earliest discussions of this topic through all of its various incarnations, Athapaskan languages have been at the centre of the issue, especially Navajo. A number of people, including Willie 1989 and Sandoval and Jelinek 1989, have considered Navajo and its sister language Apache to be 'pronominal argument languages', in which the argument structures of predicates are always satisfied by inflectional affixes. The lexical NPs in these languages are claimed to be adjuncts, simply providing further specification of the 'real' arguments, the pronominal affixes. An important argument for this view, and against the tack I have been taking, comes from the kinds of facts shown in the Dogrib sentences (22) and (23) below. (These examples are very representative of patterns widespread in Athapaskan.) The argument goes as follows: how could the underlined affixes be 'agreement'? They don't 'agree' with the lexical NP at all. On the surface, there is a lot of truth to this. The sentences in (22), for instance, both have dual number subject inflection on the verb, but subject NPs which consist of a single and sometimes apparently emphatically singular NP with a conjunction attached.

(22) a. Sede zhi ñda wezha wit'il ha.
   1s.y-sis Conj south 3.son 1d.IMP.see Fut
   'My younger sister and I are going to visit her son in the south'

b. Johnny chi shégeati.
   Conj 3d.PF.eat
   'He and Johnny have eaten'

In the sentences of (23) we see plural object inflection matched with apparently singular NPs like edemq 'his mother'.

(23) a. ?amba edeti gojets'i.
   o-sis Refl.daughter 3p.3.PF.kiss
   'Older Sister kissed her daughters'

b. John wechi edemq gogha li niwijwa.
   3.y-bro Refl.mother 3p.for fish 3.PF.take
   'John's younger brother took fish for "his mother and them"'

It is natural to ask how these facts square with any conception of 'agreement'. Well, if 'agreement' is conceived in terms of identification, as I suggested here was desirable for handling reflexives in Dogrib, and if it is acknowledged furthermore that overt NPs too may be
'identified' by having feature values supplied by their relation to inflection, then clearly the phenomena in (22) and (23) fall into the same category of things as the reflexives.

McCloskey and Hale (1984) and McCloskey (1986) have discussed structures in Irish and Old Irish similar to those in (22). (Since the conjunctions in these sentences are not also adpositions, I believe that Aissen's (1989) recent account of somewhat similar structures in Tzotzil is not appropriate for Dogrib.) I propose, following McCloskey and Hale, that each of the underlined subjects in (22) is a conjunction, of which one conjunct is an empty pronominal. This empty pronoun is identified through agreement. This identification seems to take place as follows: Agreement identifies the whole conjoined NP with features of person and number. Resolution rules of the type mentioned by McCloskey (1986) ensure that features of the whole NP are compatible with the constituent conjuncts. In cases where there is an empty conjunct, as in the examples in (22), the empty pronoun will match the larger NP in person features. This follows from the fact that the pronoun which is omitted in this construction seems always to be higher on the person hierarchy (1<2<3) than the NP which occurs overtly in the conjunction. Since in a conjunction the NP which is higher on this hierarchy determines the person of the larger NP (a fact discussed, for example, by Aissen 1989), we always find the matching mentioned above.

A similar treatment suggests itself for the examples in (23). Nouns in Dogrib are not marked for number. The plural agreement on the predicates governing the NPs serves therefore to identify their number. Looking at (22) and (23) in this way, it seems unnecessary to accept these facts as arguments for Dogrib's being a pronominal argument language or being nonconfigurational. Taking seriously the idea of agreement as identification, no such conclusion is forced. I am suggesting, then, a view of agreement which seems to me to be similar in spirit to the proposals of Steele (1989) in her recent paper on 'subject values' in Luiseño.

Acknowledgements
I would like to acknowledge the financial assistance provided by Memorial University of Newfoundland in the form of SSHRCC Internal research grants. Many thanks to the Dogrib people who served as consultants on this project, and to participants at BLS and at the Workshop on Lexical/Syntactic Relations (Toronto, February 1990) for their suggestions and comments.
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